Brake Systems

FORD SINGLE ANCHOR

DESCRIPTION

The single anchor dual servo brake assembly is used on the rear of all 2-WD trucks and on all 4 wheels of 4-WD vehicles (without disc brakes). This assembly consists of a support plate, 2 brake shoes, return springs, automatic adjuster components and a wheel cylinder.

The automaic adjuster consists of a cable (with hood and anchor fitting), a cable guide, adjusting lever, adjusting screw, pivot nut, socket and spring. The adjuster uses movement of the secondary shoe during reverse brake application to turn brake adjusting screw and maintain proper lining-to-drum clearance.

ADJUSTMENT & SERVICING

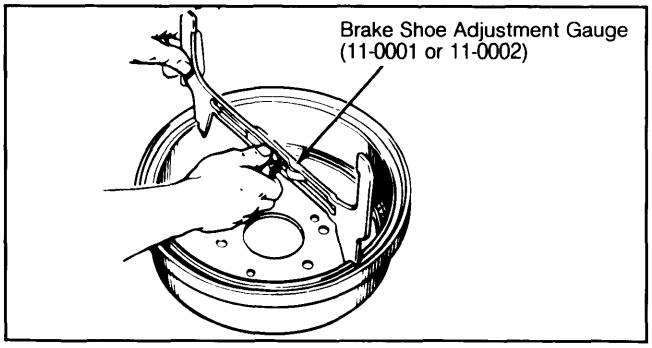
BRAKE SHOE ADJUSTMENT

1) Adjustment is made with brake drums at room teperature and parking brakes correctly adjusted. Measure inside diameter of brake drum with measuring gauge (Rotunda 11-0001 for Bronco, 100 and 150 Series; 11-0002 for 250 and 350 Series). *See Fig. 1.*

2) Reverse tool and apply to brake shoes on a line parallel to ground, through center of axle. Hold automatic adjuster lever away from adjusting screw and turn screw until shoes contact gauge. *See Fig. 2.*

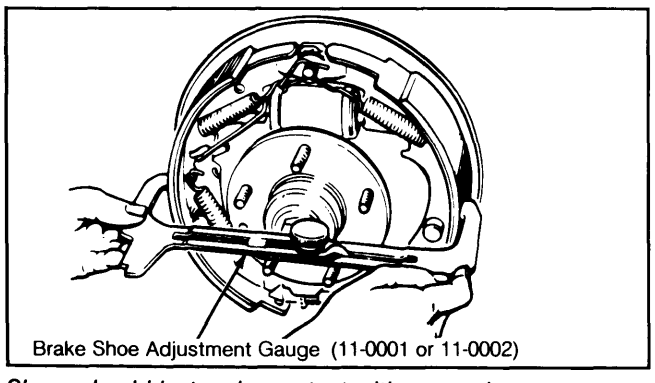
3) Apply a small amount of lubricant at shoe-to-backing plate contact points. Install brake drum and wheel. Complete adjustment by applying brakes several times while driving vehicle in reverse. Check brake operation by making several stops while driving forward.

Fig. 1: Measuring Brake Drum Diameter



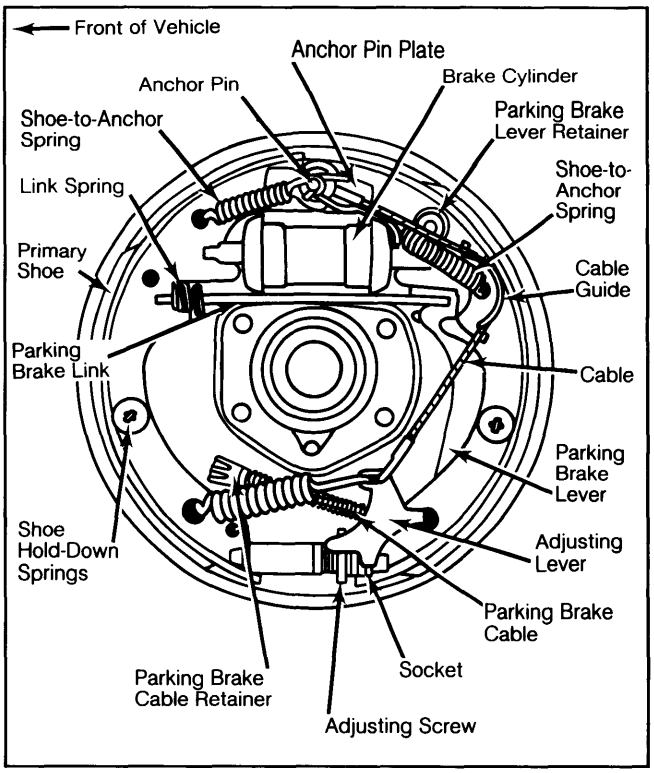
Check diameter with drum at room temperature.

Fig. 2: Measuring Brake Shoe Diameter



Shoes should just make contact with measuring gauge.

Fig. 3: Ford Rear Brake Assembly



E and F100/150 and Bronco Models

PARKING BRAKE ADJUSTMENT

NOTE: **If front brake cable tension limiting device is replaced, initial adjustment procedure must be performed before adjusting cable. If tensioner is not replaced, initial adjustment is not required.**

Initial Adjustment

Depress the parking brake pedal. Grip the tension limiter bracket to prevent it from spinning and tighten equalizer nut 2.5" (64 mm) up the rod. Check to make sure the cinch strap has slipped so that less than 1.4" (35 mm) remains exposed.

Regular Cable Adjustment (E100/350)

1) Release parking brake pedal. Grip automatic adjuster to prevent it from spinning and tighten equalizer nut 6 full turns past its original position.

2) Depress pedal and check tension. Release pedal and check rear wheel drag. If drag is noted on E250/350 models, remove drums and check for clearance between parking brake lever and cam plate. Clearance should be .015" (.38 mm) with brakes fully released. Adjust as needed.

Regular Cable Adjustment (F100/350, Bronco)

1) Depress parking brake pedal 2 notches. Attach tension gauge (Rotunda 210018) behind equalizer assembly. Turn equalizer adjusting nut until tension gauge reads 250 ft. lbs. (340 N.m).

2) Back off equalizer nut until tension gauge reads 50 ft. lbs. (68 N.m). Retighten adjusting nut until tension gauge reads 60-100 ft. lbs. (82-136 N.m). Check parking brake operation.

FORD SINGLE ANCHOR (Cont.)

BLEEDING SYSTEM

See Hydraulic Brake Bleeding in this Section.

REMOVAL & INSTALLATION

BRAKE SHOES

Removal (E & F100/150 and Bronco)

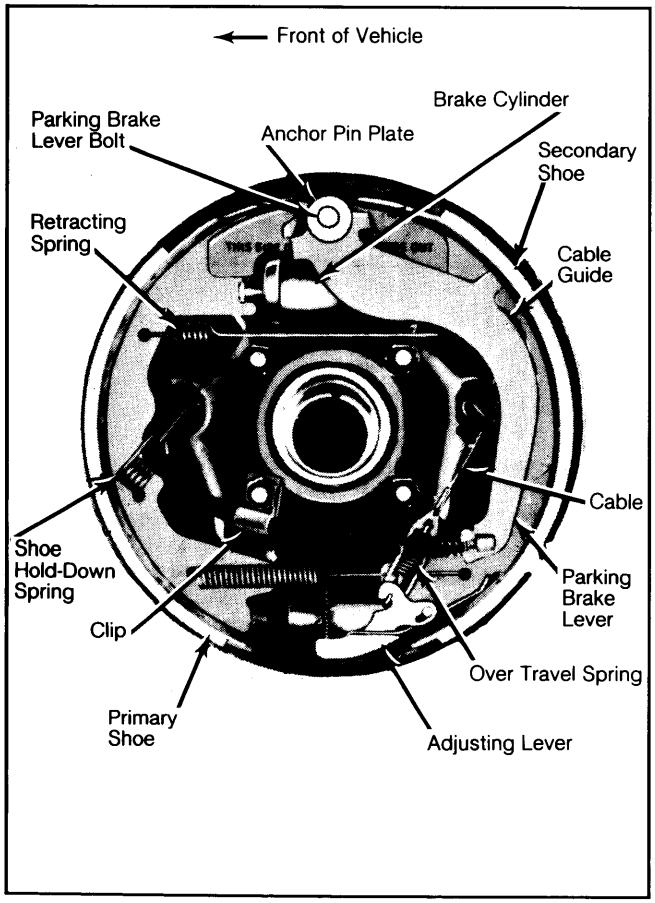
1) Remove wheel and drum. Place a clamp over ends of wheel cylinder. Disengage adjusting lever from adjusting screw by pulling backwards on lever.

2) Move outboard side of adjusting screw up and back off pivot nut as far as possible. Pull adjusting lever, cable and automatic adjuster spring down and toward rear to unhook pivot hook from large hole in secondary shoe. DO NOT pry pivot hook from hole.

3) Remove automatic adjuster spring and adjusting lever. Remove shoe to anchor springs, cable anchor and anchor pin plate.

4) Remove cable guide, shoe hold-down springs, shoe adjusting screw, pivot nut and socket. Remove parking brake spring and link. Note color and position of springs for reassembly.

Fig. 4: Ford Rear Brake Assembly



E and F250/350 Models

5) Disconnect parking brake cable from lever. Remove secondary shoe and disassemble parking brake lever from shoe by removing retaining clip and spring washer.

Installation

To install, reverse removal procedure, making sure of the following: Adjusting cable is in groove of cable guide, cable does not bind on anchor pin, and adjusting screw is mounted on correct side. If adjuster screw is mounted on wrong side, adjuster will operate incorrectly.

Removal (E & F250/350)

1) Remove wheel and brake drum. Remove parking brake assembly retaining nut from backing plate and remove parking brake assembly. Remove adjusting cable assembly from anchor pin, cable guide and adjusting lever.

2) Remove brake shoe return springs, hold down springs and brake shoes. Remove and disassemble adjusting screw assembly.

Installation

Apply a light coat of high temperature grease to contact points of brake assembly. Reverse removal procedures to complete installation.

WHEEL CYLINDER

Removal & Installation

Remove wheel, drum and brake shoes. Remove cylinder connecting links and disconnect hydraulic brake line from cylinder. Remove brake cylinder retaining bolts and remove cylinder from backing plate. To install, reverse removal procedure. Adjust brakes and bleed hydraulic system.

OVERHAUL

WHEEL CYLINDERS

Disassembly

With wheel cylinder removed from vehicle, remove rubber boots from ends of cylinders. Remove piston return spring, cylinder cups and piston from cylinder. Remove bleeder screw and inspect cylinder bore for damage.

Reassembly

If bore of cylinder is lightly pitted or scratched, hone or replace as necessary. Soak all parts in brake fluid or assembly lube and reverse disassembly procedure. Clamp brake cylinder pistons against ends of cylinder.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Front Backing Plate-to-Spindle	
7/16"-14	30-50 (41-68)
1/2"-13	55-70 (75-95)
1/2"-20	55-75 (75-102)
1 3/8"-24	30-40 (41-54)
Rear Backing Plate-to-Axle	
7/16"-14	35-45 (48-61)
1/2"-13	75-105 (102-143)
1/2"-20	50-70 (68-95)
Hydraulic Tube Nuts	
3/8" & 7/16"-24	10-15 (14-20)
1/2" & 9/16"-18	10-17 (14-23)

Brake Systems

FORD SINGLE ANCHOR (Cont.)

DRUM BRAKE SPECIFICATIONS

Application	Drum Diam. In. (mm)	Drum Width In. (mm)	Max. Drum Refinish Diam. In. (mm)	Brake Cyl. Diam. In. (mm)	Master Cyl. Diam. In. (mm)
All 100, 150 & Bronco	11.03 (280.2)	2.25 (57.2)	11.09 (281.7)	.94 (23.9)	1.00 (25.4)
E250, F250 (Exc. H.D.)	12.00 (304.8)	2.50 (63.5)	12.06 (306.3)	.94 (23.9)	1.00 (25.4)
E350, F350 & F250 H.D.	12.00 (304.8)	3.00 (76.2)	12.06 (306.3)	1.06 (27.0)	1.00 (25.4)